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## WHAT IS CLAIMED IS:

- A system for automatically initiating a telephone call
   over a computer network, comprising:
  - an address interceptor, associated with a station of a circuit-switched telephone network, that receives calling number identification signals from said circuit-switched telephone network and extracts therefrom a destination address; and
  - a network call initiator, coupled to said address interceptor and associated with a computer network terminal, that employs said destination address to initiate said telephone call via said computer network terminal.
  - 2. The system as recited in Claim 1 wherein said calling number identification signals and said destination address are associated with a single location.
  - 3. The system as recited in Claim 1 wherein said destination address is selected from the group consisting of:
- 3 a telephone number,
- an Internet Protocol address,
- a Voice over Internet Protocol (VoIP) gateway address, and
- a VoIP gateway address combined with a telephone number.

- 4. The system as recited in Claim 1 wherein said computer network is the Internet.
- 5. The system as recited in Claim 1 wherein said station
  2 leaves unanswered a call transmitting said calling number
  3 identification signals.
  - 6. The system as recited in Claim 1 wherein said calling number identification signals are associated with a second station, said second station hanging up after a predetermined number of unanswered rings.
  - 7. The system as recited in Claim 1 wherein said station and said computer network terminal are embodied in a computer and wherein a single telephone line alternatively couples said station to said circuit-switched telephone network and said computer network terminal to said computer network.

5

- 8. A method of automatically initiating a telephone call over a computer network, comprising:
- 3 extracting a destination address from calling number
- 4 identification signals received from a circuit-switched telephone
- 5 network; and
- 6 employing said destination address to initiate said telephone
- 7 call.
  - 9. The method as recited in Claim 8 wherein said calling number identification signals and said destination address are associated with a single location.
  - 10. The method as recited in Claim 8 wherein said destination address is selected from the group consisting of:
    - a telephone number,
  - an Internet Protocol address,
    - a Voice over Internet Protocol (VoIP) gateway address, and
    - a VoIP gateway address combined with a telephone number.
- 11. The method as recited in Claim 8 wherein said computer network is the Internet.

- 12. The method as recited in Claim 8 further comprising
  leaving unanswered a call transmitting said calling number
  identification signals.
  - 13. The method as recited in Claim 8 wherein said calling number identification signals are associated with a station, said method further comprising hanging up said station after a predetermined number of unanswered rings.
  - 14. The method as recited in Claim 8 wherein said method is carried out in a computer and wherein a single telephone line alternatively carries said calling number identification signals and said destination address.

- 15. A computer, comprising:
- 2 a processor;

7

- 3 a memory coupled to said processor;
- 4 a display coupled to said processor;
- 5 at least one input device coupled to said processor;
  - a circuit-switched telephone network interface, coupled to said processor, for receiving a call from a circuit-switched telephone network couplable thereto, said call including calling number identification signals;
    - a computer network interface, coupled to said processor, for allowing said computer to communicate over a computer network;
    - an address interceptor, coupled to said processor and communicable with said circuit-switched telephone network interface, for extracting a destination address from said calling number identification signals; and
- a network call initiator, coupled to said processor, for employing said destination address to initiate said telephone call via said computer network interface.
  - 16. The computer as recited in Claim 15 wherein said calling number identification signals and said destination address are associated with a single location.

- 17. The computer as recited in Claim 15 wherein said destination address is selected from the group consisting of:
- 3 a telephone number,
- an Internet Protocol address,
- a Voice over Internet Protocol (VoIP) gateway address, and
- a VoIP gateway address combined with a telephone number.
  - 18. The computer as recited in Claim 15 wherein said computer network is the Internet.
  - 19. The computer as recited in Claim 15 wherein said circuit-switched telephone network interface leaves said call unanswered.
  - 20. The computer as recited in Claim 15 wherein a station placing said call hangs up after a predetermined number of unanswered rings.
- 21. The computer as recited in Claim 15 wherein said circuitswitched telephone network interface and said computer network interface are coupled to a single telephone line.